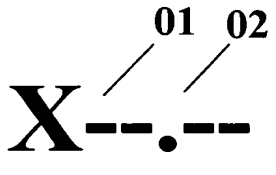

FIG. 1a

EP 0 790 560 B1

V2.03R

FIG. 1b

Tohnot "5T5925650

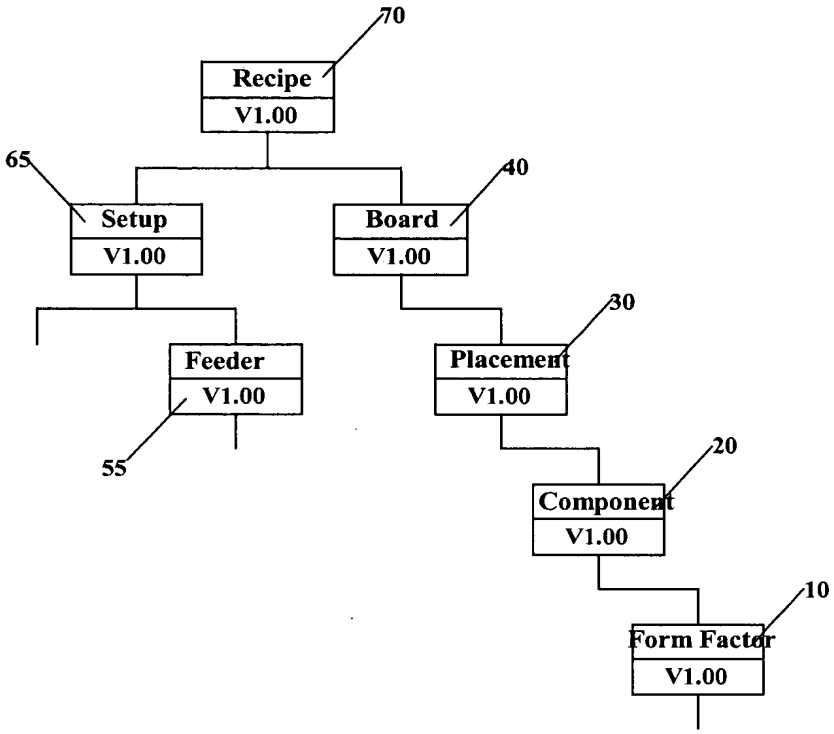

FIG. 2a

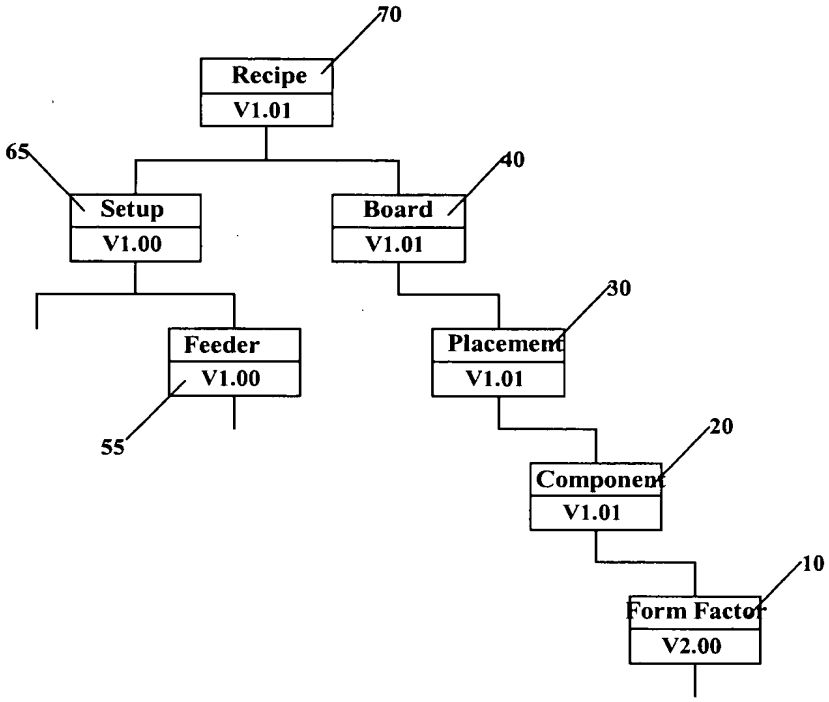
70
Recipe
V1.01
65
Setup
V1.00
40
Board
V1.01
Feeder
V1.00
55
30
Placement
V1.01
20
Component
V1.01
10
Form Factor
V2.00

FIG. 2b

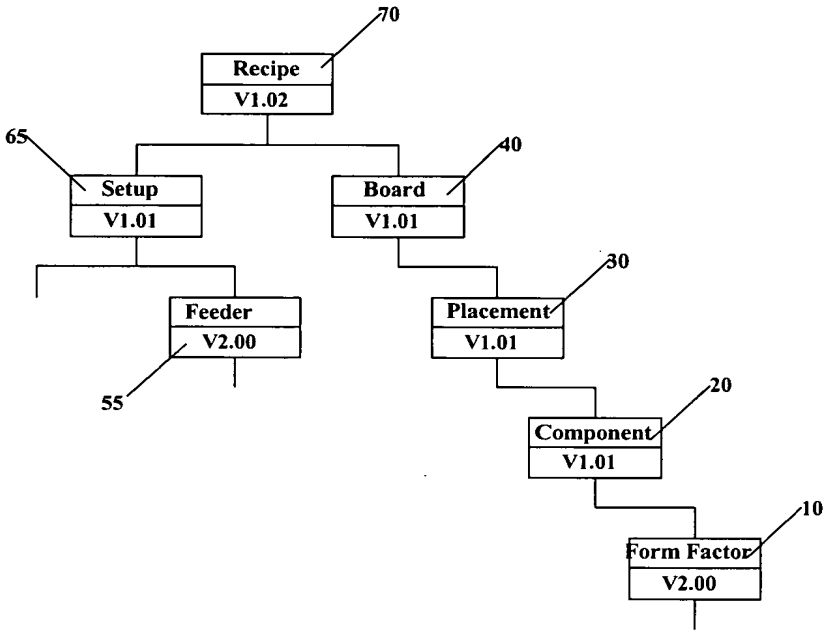
70
Recipe
V1.02
65
Setup
V1.01
40
Board
V1.01
Feeder
V2.00
55
30
Placement
V1.01
20
Component
V1.01
10
Form Factor
V2.00

FIG. 2c

Event	User	Action	Object	Name	Version
1	Eng/Op	Programs a board	Recipe -1	Board	V1.00
2	Eng/Op	**Modifies** the same board	"	"	"
3	Eng/Op	Downloads Recipe-2 for Smartphone line	Recipe -1 Recipe -2	Board SPLine	" "
4	LINE...	Runs board & requests validation	"	"	"
5	Eng/Op	Checks board & finds error	Recipe -1	Board	
6	Eng/Op	**Corrects** program	"	"	"
7	Eng/Op	Downloads recipe	Recipe -1 Recipe -2	Board SPLine	" "
8	LINE...	Runs board & requests validation	"	"	"
9	Eng/Op	Checks board and **Releases** it	**Recipe -1** **Recipe -2**	**Board** **SPLine**	**V1.00R** **V1.00R**
10	At a later time, Eng/Op wants to modify sub-object SOT23		Package Form	SOT 23	V1.00R
11	Eng/Op	**Modifies SOT23**	Pkg. Form Recipe-1 Recipe-2	SOT 23 Board SPLine	V2.00 V1.01 V1.01
12	Eng/Op	Downloads Recipe-2 and runs board	Pkg. Form Recipe-1 Recipe-2	SOT 23 Board SPLine	V2.00 V1.01 V1.01
13	LINE...	Runs board & requests release of Recipe-1/2 (line/board)	"	"	"
14	Eng/Op	Checks pkg.& **validates** it, which is equivalent to releasing it for a single line.	**Pkg. Form** **Recipe-1** **Recipe-2**	**SOT 23** **Board** **SPLine**	**V2.00R** **V1.01R** **V1.01R**
15	At a later time, Eng/Op downloads program		Pkg. Form Recipe-1 Recipe-2	SOT 23 Board SPLine	V2.00R V1.01R V1.01R
16	LINE...	Runs board with **no modifications**	"	"	"
17	At a later time, Eng/Op downloads a different **recipe (3)** with **the same SOT 23 as modified earlier in V1.01**.		Recipe-3	Pocket PC	V1.00R
18	Eng/Op	finds problem and **differently modifies** SOT23 again	Recipe-3 Pkg.Form2	Pck.PC SOT 23	V1.01 V3.0
19	Eng/Op	downloads program to line	"	"	"
20	LINE...	Runs board & requests release	"	"	"
21	Eng/Op	Checks board and **Releases** it	**Recipe-3** **Pkg.Form2**	**Pck.PC** **SOT 23**	**V1.01R** **V3.0R**
22	SYSTEM	Automatically updates recipes at the Enterprise level	Pkg. Form Recipe-1 Recipe-3	SOT 23 Board Pck.PC	**V3.00R** **V1.02R** **V1.02R**

Fig. 3

10400742.050204

Step	User	Action	Object	Name	Version
23	Engineer	Programs a board	Recipe -1	Board	V1.00
24	Engineer	**Modifies** the same board	"	"	"
25	Engineer	Downloads Recipe-2 for Smartphone line	Recipe -1 Recipe -2	Board SPLine	" "
26	LINE...	Runs board & asks Operator to validate recipe/board	"	"	"
27	Operator	Checks board & finds error	Recipe -1	Board	
28	Operator	**Corrects** program	"	"	"
29	Operator	Downloads recipe & runs board	Recipe -1 Recipe -2	Board SPLine	" "
30	LINE...	Runs board & asks Operator to validate recipe/board	"	"	"
31	Operator	Checks board and **validates** it	**Recipe -1** **Recipe -2**	**Board** **SPLine**	**V1.00V** **V1.00V**
32	At a later time, **Operator** finds some issues on SOT23		Package Form	SOT 23	V1.00R
33	Operator	**Modifies SOT23**	Pkg. Form Recipe-1 Recipe-2	SOT 23 Board SPLine	V2.00 V1.01 V1.01
34	Operator	Downloads recipe for Smartphone Line	Pkg. Form Recipe-1 Recipe-2	SOT 23 Board SPLine	V2.00 V1.01 V1.01
35	LINE...	Runs board & requests release	"	"	"
36	Operator	Checks board and **Validates** it	**Pkg. Form** **Recipe-1** **Recipe-2**	**SOT 23** **Board** **SPLine**	**V2.00V** **V1.01V** **V1.01V**
37	**Engineer** informed of modification				
38	Engineer	approves modification & **Releases SOT 23**	**Package Form**	**SOT 23**	**V2.00R**
39	Operator	Downloads to different line Released objects are also released on a different line, validated objects have to be validated again	Pkg. Form Recipe-1 Recipe-2	SOT 23 Board SPLine	V2.00R V1.01 V1.01
40	LINE 2	Runs board and asks operator to validate recipe/board			
41	Operator	checks program and **validates** it	Pkg. Form Recipe-1 Recipe-2	SOT 23 Board SPLine	**V2.00R** **V1.01V** **V1.01V**
42	Engineer	checks program and **releases** it	Pkg. Form Recipe-1 Recipe-2	SOT 23 Board SPLine	**V2.00R** **V1.01R** **V1.01R**
43	Operator	Downloads program to a third line	Pkg. Form Recipe-1 Recipe-2	SOT 23 Board SPLine	V2.00R V1.01R V1.01R
44	Line 3	Runs board since it is a released program			

Fig. 4

EP1705561A2

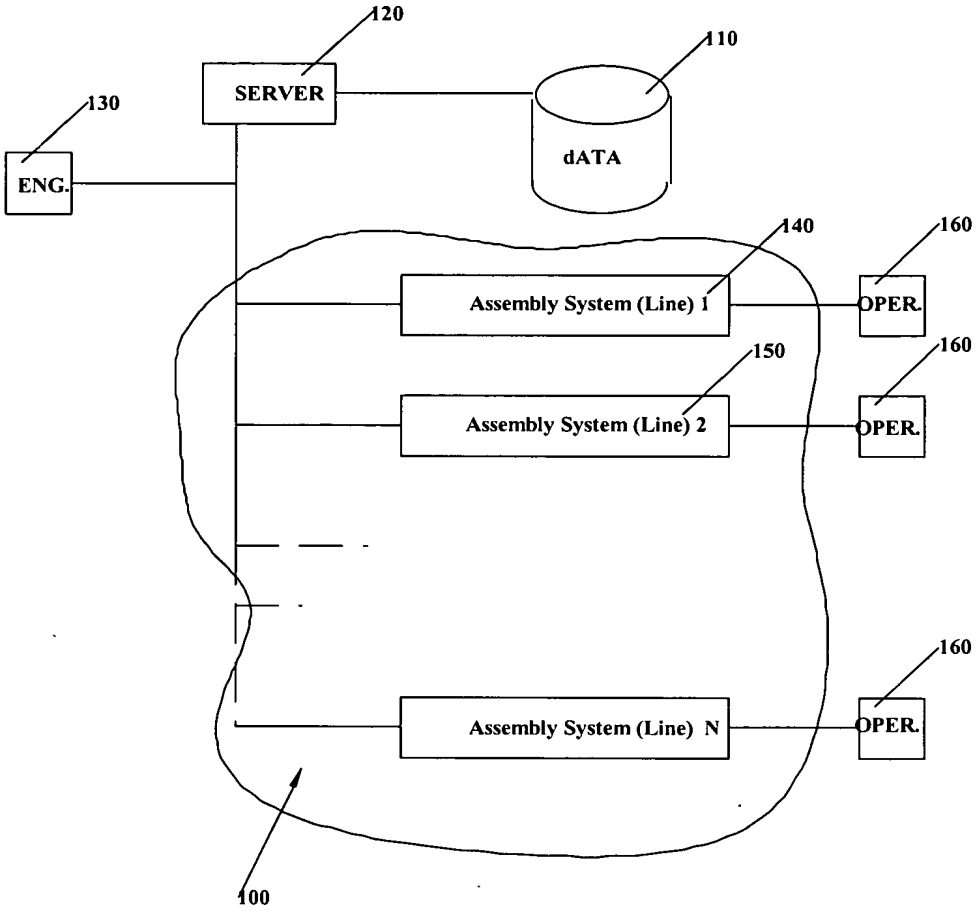
120
SERVER
110
dATA
130
ENG.
140
160
Assembly System (Line) 1
OPER.
150
160
Assembly System (Line) 2
OPER.
160
Assembly System (Line) N
OPER.
100

FIG. 5